

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions,  
and listings, of claims in the application:

LISTING OF CLAIMS:

1-15. (canceled)

16. (currently amended) An oxidized carbohydrate, derived from a carbohydrate containing 1,2-dihydroxyethylene groups as part of a 5- or 6-membered ring in its repeating units, the 1,2-dihydroxyethylene groups having at least partially been oxidized to dialdehyde groups, and a part of the aldehyde groups having been oxidized to carboxylic acid groups with a catalytic amount of molecular halogen, the ratio between aldehyde groups and carboxyl groups being between 25/75 and 80/20, wherein said oxidized carbohydrate contains on average 0.1-1.5 carboxyl groups and 0.5-1.9 aldehyde groups per oxidized 1,2-dihydroxyethylene group.

17. (previously presented) An oxidized carbohydrate according to claim 16, containing on average 0.5-1.3 carboxyl groups and 0.7-1.5 aldehyde groups per oxidized 1,2-dihydroxyethylene group.

18. (currently amended) An oxidized carbohydrate derived from a carbohydrate containing 1,2-dihydroxyethylene

groups in its repeating units, the 1,2-dihydroxyethylene groups having at least partially been oxidized to dialdehyde groups, and a part of the aldehyde groups having been oxidized to carboxylic acid groups with a catalytic amount of molecular halogen, the ratio between aldehyde groups and carboxyl groups being between 25/75 and 80/20, and wherein said oxidized carbohydrate contains on average 0.1-1.2 carboxyl groups and 0.3-1.2 aldehyde groups per repeating unit.

19. (previously presented) An oxidized carbohydrate according to claim 16, wherein the carbohydrate is selected from starch, amylose, amylopectin and modifications thereof.

20. (previously presented) An oxidized carbohydrate according to claim 16, wherein the carbohydrate is selected from cellulose and modifications thereof.

21. (currently amended) An oxidized carbohydrate according to claim 16 An oxidized carbohydrate, derived from a carbohydrate containing 1,2-dihydroxyethylene groups as part of a 5- or 6-membered ring in its repeating units, the 1,2-dihydroxyethylene groups having at least partially been oxidized to dialdehyde groups, and a part of the aldehyde groups having been oxidized to carboxylic acid groups with

a catalytic amount of molecular halogen, the ratio between aldehyde groups and carboxyl groups being between 25/75 and 80/20, wherein said oxidized carbohydrate contains on average 0.1-1.5 carboxyl groups and 0.5-1.9 aldehyde groups per oxidized 1,2-dihydroxyethylene group,

wherein the carbohydrate is a 2,1-fructan.

22. (withdrawn) A process for producing an oxidized carbohydrate containing aldehyde groups and carboxylic acid groups, the ratio between aldehyde groups and carboxyl groups being between 25/75 and 80/20, and wherein said oxidized carbohydrate contains on average 0.1-1.5 carboxyl groups and 0.5-1.9 aldehyde groups per oxidized 1,2-dihydroxyethylene group, the process comprising oxidizing a dialdehyde carbohydrate obtainable by oxidizing a carbohydrate containing 1,2-dihydroxyethylene groups in its repeating units, the oxidation of the dialdehyde carbohydrate being performed with a catalytic amount of molecular halogen.

23. (withdrawn) A process according to claim 22, wherein the oxidation with molecular halogen is performed at a pH between 3 and 7.

24. (withdrawn) A process according to claim 22, wherein the molecular halogen is produced in situ by reaction of halide with a carboxylic peracid.

25. (withdrawn) A process according to claim 22, wherein the molecular halogen is molecular bromine.

26. (withdrawn) A process for producing an oxidized, amino-substituted carbohydrate, comprising reductively aminating residual aldehyde groups in the oxidized carbohydrate obtained by the process according to claim 22.

27. (withdrawn) An amino-substituted oxidation product derived from a carbohydrate containing 1,2-dihydroxyethylene groups in its repeating units, these dihydroxyethylene groups having at least partially been oxidized to dialdehyde groups, the product containing on average 0.1-1.5 carboxyl groups and 0.1-1.9 substituted amine groups per oxidized 1,2-dihydroxyethylene group.

28. (withdrawn) An amino-substituted oxidation product according to claim 27, containing on average 0.1-1.2 carboxyl groups and 0.3-1.2 substituted amino groups per repeating unit.

29. (withdrawn) An amino-substituted oxidation product according to claim 27, wherein said substituted

amino group has the formula -NR<sup>1</sup>R<sup>2</sup>, wherein R<sup>1</sup> represents hydrogen, a C<sub>1</sub>C<sub>20</sub> alkyl, alkenyl or alkynyl group optionally substituted with carboxy, hydroxy, C<sub>1</sub>C<sub>12</sub> alkoxy, amino, carbamoyl and/or aryl, including natural and synthetic amino acid residues, and R<sup>2</sup> represents hydrogen, amino, substituted amino, hydroxy, alkoxy, or a C<sub>1</sub>-C<sub>12</sub> alkyl, alkenyl or alkynyl group optionally substituted with carboxy, hydroxy, C<sub>1</sub>-C<sub>12</sub> alkoxy, amino and/or carbamoyl, or a substituted iminomethyl group, or R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they are bound, represent a three- to seven- membered heterocyclic system, optionally containing one or more further heteroatoms selected from nitrogen, oxygen and sulphur and optionally substituted with carboxy, hydroxy, oxo, C<sub>1</sub>-C<sub>12</sub> alkyl, alkenyl, alkynyl or alkoxy, amino, carbamoyl and/or aryl.

30. (previously presented) An oxidized carbohydrate according to claim 16, wherein at least a part of said oxidized 1,2-dihydroxyethylene groups has been oxidized to monoaldehyde-monocarboxylic groups.

31. (previously presented) An oxidized carbohydrate according to claim 18, wherein at least a part of said oxidized 1,2-dihydroxyethylene groups has been oxidized to monoaldehyde-monocarboxylic groups.

32. (currently amended) An oxidized carbohydrate comprising 1,2-di-hydroxyethylene groups as part of a 5- or 6-membered ring in its repeating units, the 1,2-dihydroxyethylene groups having at least partially been oxidized to monoaldehyde-monocarboxylic groups with a catalytic amount of molecular halogen, wherein said oxidized carbohydrate contains on average 0.1-1.5 carboxyl groups and 0.5-1.9 aldehyde groups per oxidized 1,2-dihydroxyethylene group, the ratio between aldehyde groups and carboxyl groups being between 25/75 and 80/20.

33. (currently amended) An oxidized carbohydrate comprising 1,2-di-hydroxyethylene groups as part of a 5- or 6-membered ring in its repeating units, the 1,2-dihydroxyethylene groups having at least partially been oxidized to monoaldehyde-monocarboxylic groups with a catalytic amount of molecular halogen, wherein said oxidized carbohydrate contains on average 0.1-1.2 carboxyl groups and 0.3-1.2 aldehyde groups per repeating unit, the ratio between aldehyde groups and carboxyl groups being between 25/75 and 80/20.

34. (new) An oxidized carbohydrate according to claim 18, wherein the carbohydrate is selected from starch, amylose, amylopectin and modifications thereof.

35. (new) An oxidized carbohydrate according to claim 32, wherein the carbohydrate is selected from starch, amylase, amylopectin and modifications thereof.

36. (new) An oxidized carbohydrate according to claim 33, wherein the carbohydrate is selected from starch, amylase, amylopectin and modifications thereof.